

REMARKS/ARGUMENTS

INTRODUCTORY COMMENTS

Status of Claims

Claims 1-93 are indicated as pending in the application. However, missing from the office communication is an examination of claims 94-101 submitted for consideration on June 6, 2003, under 37 CFR §1.8. Accordingly, Applicant respectfully requests a supplemental action regarding Claims 94-101 under MPEP §714.05.

Claims 2-9, 11, 12, 15, 16, 39, and 40, are withdrawn from consideration. Claims 1, 10, 13, 14, 17-20, 22-28, 30, 31, 35, 42, 43, 45-54, 58, 60, 61, 65, 66, 71-73, 76, 77, 83, 87, and 88, are objected to by the Examiner for informalities. Claims 1, 10, 13, 14, 17-38, and 41-93 are rejected by the Examiner. Of the pending claims, Applicant has amended claims 41, 81, and 93, leaving claims 1, 10, 13-14, 17-38, 41-101 for consideration upon entry of the present Amendment.

Applicant respectfully submits that the rejections under 35 U.S.C. §102(b) and 35 U.S.C. §103(a) have been traversed, that no new matter has been entered, and that the application is in condition for allowance.

Status of Drawings

The Examiner comments that the drawings filed on 6 July 2001 are acceptable subject to correction of the informalities indicated on the attached "Notice of Draftsperson's Patent Drawing Review," PTO-948. However, Applicant's receipt of the instant office action did not include a copy of the "Notice of Draftsperson's Patent Drawing Review," PTO-948, and the PTO-948 "Attachment(s) box" on the first page of the instant office action was not checked off. Accordingly, Applicant respectfully requests a supplemental action regarding the drawing informalities.

Regarding Examiner's Paragraph 2

The Examiner comments that the term "energy" is not supported by the specification, but does not make a rejection or objection based on this comment. The Applicant traverses this comment for the following reasons. Paragraphs [0018], [0053], [0056-0058] and [0064], discloses means for emitting an energy beam, X-ray energy expressed in keV, the spectrum of an X-photon beam, photon flux energy, and an X-ray source of energy. From the plain language of the specification, it would be clear to one skilled in the art that Applicant did not intend the invention as claimed to be limited to only an X-ray source of energy, and that sources of energy other than X-ray may be utilized in accordance with the teaching of the invention. Accordingly, Applicant respectfully requests acceptance of the claim language in its present form.

Regarding Examiner's Paragraph 4

The status of the drawings is discussed earlier under "Status of Drawings."

Objections to the Claims

Claims 1, 10, 13, 14, 17-20, 22-28, 30, 31, 35, 42, 43, 45-54, 58, 60, 61, 65, 66, 71-73, 76, 77, 83, 87, and 88, are objected to by the Examiner for informalities. The Applicant traverses this objection for the following reasons. Applicant respectfully submits that where the specification provides general guidelines as to the scope of the invention such that one of ordinary skill in the art would know what was meant, the subject matter of the invention would have been described and supported in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the invention as claimed and disclosed. Applicant believes the present specification and claims satisfy that burden.

Regarding Examiner's Paragraph 6 (Claims 1, 13, 14, 35, 58, 61, 72, and 83)

The Examiner comments that the term "a (the) phase of heightened attenuation" is vague and indefinite, and that a practitioner in the art could define attenuation as the

reduction in the intensity of an x-ray beam as the x-ray beam traverses matter by either absorption or deflection of photons from the x-ray beam. The Examiner further comments that it is well known in the art that some tissues attenuate more x-rays than other tissues, and that it is this difference in attenuation that determines the amount of contrast in an x-ray image. The Applicant traverses this comments for the following reasons.

Paragraphs [0053]-[0055] and [0061], and Figures 4 and 5 discloses and illustrates the linear attenuation coefficients of both a contrast medium, iodine for example, and an adipose tissue, a breast for example, where it is observed that the linear attenuation coefficient of the contrast medium has a local maximum, or heightened attenuation, at about 33 keV (see Figure 4). In Paragraph [0061], Applicant discloses how these different attenuation characteristics may be utilized to obtain high image quality. During a phase of heightened attenuation due to the contrast medium (see, for example, Figure 4 at about 33 keV), the elevated ratio between the linear attenuation coefficient of the contrast medium and the linear attenuation coefficient of the breast tissue may be utilized for improved image processing (Paragraph [0061]).

In view of the foregoing, Applicant believes that the present specification and claims satisfy the burden of clarity and conciseness necessary to traverse an objection that the invention is vague and indefinite. Accordingly, Applicant requests reconsideration and withdrawal of this objection.

Regarding Examiner's Paragraph 7 (Claim 1)

The Examiner comments that the phrase "a representative image of the contrast from the tissue of the organ is produced from the plurality of digital images" in claim 1 is unclear. The Examiner further comments that the step of how the representative image is determined is missing from this claim element. The Applicant traverses this comment for the following reasons.

The specific language of Claim 1, which recites, inter alia, the element of "calculating a representative image of the contrast produced in the tissues of the organ

from the images”, and Paragraphs [0041] and [0046], describes the calculation of a differential image, alternatively a representative image, of the contrast produced in the tissue from other images taken in steps 30 and 32. Here, Applicant has clearly and concisely described the use of contrast images for calculating a representative image of the contrast produced in the tissues of the organ, which would be clear to one skilled in the art from the language of the specification itself.

In view of the foregoing, Applicant believes that the present specification and claims satisfy the burden of clarity and conciseness necessary to traverse an objection that the invention is unclear. Accordingly, Applicant requests reconsideration and withdrawal of this objection.

Regarding Examiner's Paragraph 8

(Claims 10, 14, 22, 23, 24, 42, 43, 45-50, 60, 71, and 82)

The Examiner comments that the term “at least one second images” is not grammatically correct, is unclear, and that one could interpret the term to mean that at least two images are being utilized or that the images are taken at intervals of one second each. The Applicant traverses the comment for the following reasons.

At the outset, Applicant submits that the term “at least one” is a well known term in the field of patent drafting that means “one or more”, and that the expanded term “at least one second images” means “one or more second images”.

Additionally, Paragraphs [0013], [0015], and [0017] equates the term “second images” to the term “second image series”, refers to the number of second images as ranging from two to ten in an embodiment, and describes the subtraction of the first image from each of the second images. Applicant clearly refers to the second images in terms of quantity and not time, and at no point in the instant application does Applicant ever refer to two images being taken at intervals of one second each. Consequently, it is not clear the Examiner can conclude from the specification that one could interpret the term “at least one second images” to mean that two images are taken at intervals of one

second each. Applicant's specification as written clearly, concisely, and consistently uses the term "at least one second images" to mean "one or more second images".

In view of the foregoing, Applicant believes that the present specification and claims satisfy the burden of clarity and conciseness necessary to traverse an objection that the invention is unclear. Accordingly, Applicant requests reconsideration and withdrawal of this objection.

Regarding Examiner's Paragraph 9 (Claims 17-20, 51-52, and 73)

The Examiner comments that the term "few" implies a range for each claim and is not clearly defined in the specification. The Applicant traverses this comment for the following reasons.

At the outset, Applicant submits that when the term "few" is given its ordinary meaning of "amounting to a small number", the term "a few minutes" carries the intended meaning of "amounting to a small number of minutes". In support of this meaning, see Paragraphs [0050-0051], for a disclosure of elapsed time, that is, the time elapsed between the instant of injection of the contrast medium and the instant at which the curve of attenuation as a function of time reaches its maximum, as being on the order of one minute in one embodiment and five minutes in another embodiment. It is also likely that another embodiment may have an elapsed time on the order of two, three or four minutes, for example. One skilled in the art would recognize from the language of the specification itself that the exact time after the end of the attenuation phase that a third image is taken is not crucial, but rather that the third image is taken a few minutes (that is, a small number of minutes) after the end of the attenuation phase. Accordingly, Applicant submits that the term "a few minutes" is clearly defined in the specification to the degree necessary for an understanding by one skilled in the art.

In view of the foregoing, Applicant believes that the present specification and claims satisfy the burden of clarity and conciseness necessary to traverse an objection that the invention is not clearly defined. Accordingly, Applicant requests reconsideration and withdrawal of this objection.

Regarding Examiner's Paragraph 10 (Claims 26-28, 53, 54, 65, 66, 76, 77, 87, and 88)

The Examiner comments that the phrase of "filter spatially" is unclear, as the term could be regarded as having the character of space, or could be regarded as being an image enhancement processing feature. The Applicant traverses the comments for the following reasons.

Paragraph [0017] discloses that the subtracted images can be filtered spatially; Paragraph [0041] discloses that an image subtraction process may be followed by spatial filtering; and, Paragraph [0047], discloses an advantage of spatial filtering that includes reducing the time of subsequent digital processing. Here, Applicant has clearly and concisely described a spatial filtering process, that is, a process where an image is filtered spatially, that involves an image enhancement processing feature, and at no point in the instant application does Applicant discuss spatial filtering as pertaining to an image that is filtered relative to the volume or thickness of the organ. Accordingly, from the language of the specification itself, one skilled in the art would know that "filter spatially" refers to an image enhancement processing feature.

In view of the foregoing, Applicant believes that the present specification and claims satisfy the burden of clarity and conciseness necessary to traverse an objection that the invention is unclear. Accordingly, Applicant requests reconsideration and withdrawal of this objection.

Regarding Examiner's Paragraph 11 (Claims 30-31)

The Examiner comment that claims 30-31 have both been amended to be dependent on Claim 1 and to contain the same claim limitation. The Examiner believes that the intent is to amend Claim 30 to correct a typographical error, and to maintain Claim 31 as originally written.

Applicant appreciates the Examiner's comments regarding Claim 31, which Applicant agrees with. Regarding the Amendment filed February 24, 2003, page 1 lists claim 30 as amended, page 2 identifies claim 30 as being amended to correct a

typographical error, and page 7 identifies claim 30 in marked up format. However, on page 11 presenting the amended claims in clean format, claim 30 was incorrectly identified as claim 31, which is an obvious typographical error.

Accordingly, Applicant agrees with the Examiner that claim 30 is to be amended and that claim 31 is to be as originally written. Applicant herein requests that the Examiner take such action by Examiner's Amendment.

Regarding Examiner's Paragraph 12 (Claims 48-50)

The Examiner comments that the phrases "at least one second images are taken at intervals equally distributed in time" and "at least one second images are taken at shorter intervals of time" are unclear to the Examiner. The Examiner further comments that it could be interpreted that the at least one second image is taken at a shorter interval of time than the first image; that the images are taken at shorter intervals of time during the phase of heightened attenuation due to the contrast medium than after the phase of heightened attenuation; or, that two images making up the second images can be taken at two different time intervals (one that is evenly distributed in time and the other that is unevenly distributed in time). The Examiner additionally comments that these phrases are not clearly illustrated in the drawings. The Applicant traverses these comments for the following reasons.

Paragraph [0045] and to Figure 3, discloses and illustrates a subsequent step 32 that involves the acquisition of several images (at least one second images) taken at regular time intervals, or, on the other hand, at growing time intervals, where provision will be made for taking from two to ten images (Paragraph [0045]). Here, Applicant has clearly and concisely described and illustrated, in sufficient detail for one skilled in the art, limitations that involve time intervals between consecutive second images, where the time intervals may be equally distributed in time, or where the time intervals between second images may be shortened. Applicant finds no language in the claims that relate the time intervals between the second images to a time interval associated with the first image, or to the time intervals between the second images in relation to the phase of

heightened attenuation due to the contrast medium, and it is not clear to Applicant how the Examiner can draw such a conclusion from the claim language itself. The claim language of the subject claims relates the time intervals in which the at least one second images "are taken", and not in which the at least one second images "are taken in relation to" something else.

Accordingly, Applicant submits that the application as originally filed clearly and concisely describes the acquisition of several images (at least one second images) that may be taken at intervals equally distributed in time, or alternatively, taken at shorter intervals of time, and that Figure 3 provides sufficient illustration of these limitations.

In view of the foregoing, Applicant believes that the present specification and claims satisfy the burden of clarity and conciseness necessary to traverse an objection that the invention is unclear. Accordingly, Applicant requests reconsideration and withdrawal of this objection.

In view of the foregoing comments, Applicant respectfully requests reconsideration and withdrawal of all the claim objections.

Rejections Under 35 U.S.C. §102(b)

Claims 1, 10, 21, 22, 26, 35-38, 41, 46-48, 53-54, 60, and 62-66, are rejected under 35 U.S.C. §102(b) as being anticipated by Horiba et al. (U.S. Patent No. 4,672,651) (hereinafter, Horiba). The Examiner comments that Horiba discloses the invention as claimed including the limitation of "wherein at least one second image is taken after injection of the contrast medium during a phase of heightened attenuation due to the contrast medium" (col. 5, lines 31-33). (Paper 8, page 5).

Horiba discloses a method of and apparatus for reconstructing the shape of an interested part of an object through irradiation with x-rays, which includes obtaining an image before injection of the contrast medium into the object 5, called a mask image, and obtaining an image after injection of the contrast medium, called a live image (Title, Abstract, and Col. 5, lines 31-33). Horiba is notably absent any disclosure of taking at

least one second image after injection of the contrast medium during a phase of heightened attenuation due to the contrast medium.

Applicant respectfully submits, "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. V. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) (emphasis added). Moreover, "[t]he identical invention must be shown in as complete detail as is contained in the *** claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

In comparing the invention as claimed with Horiba, the specific language of independent claims 1, 35, and 41 (claim 41 herein amended), which include a limitation that requires at least one second image being taken after the injection of the contrast medium during a phase of heightened attenuation due to the contrast medium. Horiba does not disclose this limitation. While the Examiner attempts to find the noted limitation in Horiba at col. 5, lines 31-33, the plain language of Horiba simply does not provide the limitation as claimed in the instant invention.

Dependent claims inherit all of the elements of the respective parent claim.

As discussed earlier, the invention as claimed recites a method and apparatus for radiological examination by injection of a contrast medium that enables the detection and analysis of lesions in radiologically dense breasts, especially when they are not accompanied by microcalcifications. The method and apparatus utilizes the heightened attenuation due to the contrast medium at about 33 keV, in comparison to a relatively weak attenuation due to the adipose tissue, thereby enabling a user to more readily mark an area of interest (Paragraphs [0005], and [0053-0055], and Figures 4 and 5). Figures 4 and 5 of the present application illustrate the difference between the linear attenuation coefficients of the contrast medium and the breast tissue, which clearly show the presence of heightened attenuation due to the contrast medium at about 33 keV, and the absence of the same due to the breast tissue. While the invention as disclosed utilizes the ratio of linear attenuation coefficients, especially during the phase of heightened attenuation due

to the contrast medium, Horiba is silent on any such relationship. Not only is Horiba absent any disclosure what so ever regarding the taking of at least one second image after the injection of the contrast medium during a phase of heightened attenuation due to the contrast medium, Horiba is also absent any teaching, suggestion or motivation that would arrive at such a limitation.

In view of the amendment and foregoing remarks, Applicant submits that Horiba does not disclose each and every element of the invention as claimed and therefore cannot be anticipatory. Accordingly, Applicant respectfully submits that the Examiner's rejection under 35 U.S.C. §102(b) has been traversed, and requests that the Examiner reconsider and withdraw of this rejection.

Rejections Under 35 U.S.C. §103(a)

Regarding Examiner's Paragraph 16

Claims 13, 14, 17-20, 23-25, 27-30, 32-34, 42, 45, 49-52, 55-57, 61, and 67-69, are rejected under 35 U.S.C. §103(a) as being unpatentable over Horiba as applied to Claims 1, 10, 35, and 41, respectively, and further in view of Sharma et al. (U.S. Patent No. 5,596,200) (hereinafter, Sharma). The Examiner acknowledges that Horiba fails to disclose that the images are taken from a mammography examination; that the gray level is proportional to the quantity and density of the contrast medium; and, that the number of second images can range between two and ten. The Examiner alleges that Sharma cures the deficiencies of Horiba to arrive at the claimed invention.

Sharma teaches an x-ray imaging system 10 having an x-ray source 12 and a hybrid sensor chip 40 responsive to the number of x-ray photons absorbed and productive of a usable imaging signal (Abstract, and col. 3, line 49 through col. 4, line 45). Sharma is notably absent any teaching of the taking of at least one second image after injection of the contrast medium during a phase of heightened attenuation due to the contrast medium.

Applicant respectfully submits that the obviousness rejection based on the cited references is improper as the references fail to teach or suggest each and every element of the invention as claimed. For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a prima facie case of obviousness. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). The Examiner must meet the burden of establishing that all elements of the invention as claimed are taught or suggested in the prior art. MPEP §2143.03.

As discussed earlier, independent claims 1, 35, and 41, include the element that requires at least one second image being taken after the injection of the contrast medium during a phase of heightened attenuation due to the contrast medium, and the fact that Horiba is absent any disclosure, teaching, suggestion, or motivation to arrive at such a limitation. In looking to cure the deficiency of Horiba, the Examiner cited Sharma, but Sharma is also absent any teaching, suggestion, or motivation that would arrive at such an element.

Since dependent claims inherit all of the elements of the respective parent claim, Applicant submits that Sharma in combination with Horiba fails to teach each and every element of the invention as claimed.

In view of the foregoing, Applicant submits that the cited references fail to teach or suggest each and every element of the invention as claimed and disclose a substantially different invention from the invention as claimed, and therefore cannot properly be used to establish a prima facie case of obviousness. Accordingly, Applicant respectfully requests reconsideration and withdrawal of this rejection.

Regarding Examiner's Paragraph 18

Claims 31 and 59 are rejected under 35 U.S.C. §103(a) as being unpatentable over Horiba as applied to claims 1 and 35 above, and further in view of Mistretta et al. (U.S. Patent No. 3,854,049) (hereinafter, Mistretta). The Examiner acknowledges that Horiba fails to disclose that the emitting x-ray beam has a maximum intensity for a frequency in

the same order as a selected absorption line of the contrast medium, and alleges that Mistretta cures these deficiencies to arrive at the claimed invention.

Mistretta teaches an x-ray system 10 having an x-ray source 14 and a plurality of selectively usable x-ray filters, two such filters shown as 24a and 24b. The x-ray filters 24a and 24b are chosen to contain various materials capable of absorbing x-rays in a selective manner, so that the continuous band of x-rays produced by the x-ray tube 16 will be converted into x-ray spectra having one or more peaks at various energy levels (col. 3, lines 16-39). Differential images can be produced by subtracting the two different x-ray images that are produced using the two different x-ray filters, thereby enabling compensation for patient thickness variations (Abstract and Title). Mistretta is notably absent any teaching of the taking of a first image before injection of the contrast medium, the taking of at least one second image after injection of the contrast medium during a phase of heightened attenuation due to the contrast medium, and the calculation of a representative image of the contrast produced in the tissues of the organ from the images.

Applicant respectfully submits that the obviousness rejection based on the cited references is improper as the references fail to teach or suggest each and every element of the invention as claimed. For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a prima facie case of obviousness. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). The Examiner must meet the burden of establishing that all elements of the invention as claimed are taught or suggested in the prior art. MPEP §2143.03.

Independent claims 1 and 35 include the elements that require a first image to be taken before injection of the contrast medium, at least one second image to be taken after the injection of the contrast medium during a phase of heightened attenuation due to the contrast medium, and the calculation of a representative image of the contrast produced in the tissues of the organ from the images. As discussed earlier, Horiba is absent any disclosure, teaching, suggestion, or motivation to arrive at such limitations. In looking to

cure the deficiency of Horiba, the Examiner looks to Mistretta, but Mistretta is also absent any teaching, suggestion, or motivation that would arrive at such limitations.

The Examiner alleges that Mistretta discloses that the x-ray attenuation coefficient of contrast medium varies as a function of x-ray energy, that the energy of the x-ray spectra at 65 kVp is in relationship to the contrast medium, and that tissue thickness is a function of the x-ray energy as it relates to the attenuation coefficient of the contrast medium. The Examiner further alleges that it would have been obvious to combine Mistretta with Horiba based on knowing the relationship between x-ray attenuation coefficient of the contrast medium, the x-ray energy, and the thickness variation, for the purpose of improving image resolution of the contrast medium in the images (Paper 8, page 8).

Even assuming that Mistretta discloses all that the Examiner alleges it discloses, the combination of Mistretta with Horiba is still absent the combined elements of a first image being taken before injection of the contrast medium, at least one second image being taken after the injection of the contrast medium during a phase of heightened attenuation due to the contrast medium, and the calculation of a representative image of the contrast produced in the tissues of the organ from the images, as claimed.

Since dependent claims inherit all of the elements of the respective parent claim, Applicant submits that Mistretta in combination with Horiba fails to teach each and every element of the invention as claimed.

In view of the foregoing, Applicant submits that the cited references fail to teach or suggest each and every element of the invention as claimed and disclose a substantially different invention from the invention as claimed, and therefore cannot properly be used to establish a prima facie case of obviousness. Accordingly, Applicant respectfully requests reconsideration and withdrawal of this rejection.

Regarding Examiner's Paragraph 19

Claims 70-80, and 81-93, are rejected under 35 U.S.C. §103(a) as being unpatentable over Horiba and Sharma. The Examiner acknowledges that Horiba fails to

disclose an article of manufacture; a program storage device readable by a machine; a computer program product for use with an image display device; that the gray level is proportional to the quantity and density of the contract medium; and, that the number of second images can range between 2 and 10, and alleges that Sharma cures these deficiencies to arrive at the invention as claimed.

Applicant respectfully submits that the obviousness rejection based on the cited references is improper as the references fail to teach or suggest each and every element of the invention as claimed. For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a prima facie case of obviousness. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). The Examiner must meet the burden of establishing that all elements of the invention as claimed are taught or suggested in the prior art. MPEP §2143.03.

For all the reasons stated earlier regarding Horiba and Sharma, the combination of Horiba and Sharma fails to teach or suggest the elements of the invention as claimed requiring that a first image be taken before injection of the contrast medium, that at least one second image be taken after the injection of the contrast medium during a heightened attenuation due to the contrast medium, and that a representative image produced in the object from the images be calculated.

In view of the foregoing, Applicant submits that the cited references fail to teach or suggest each and every element of the invention as claimed and disclose a substantially different invention from the invention as claimed, and therefore cannot properly be used to establish a prima facie case of obviousness. Accordingly, Applicant respectfully requests reconsideration and withdrawal of this rejection.

Additionally, and with regard to all of the obviousness rejections, Applicant respectfully submits that an Examiner cannot establish obviousness by citing references that describe various aspects of the invention as disclosed and as claimed without also providing evidence of the motivating force that would compel one skilled in the art to do what the patent applicant has done. *Ex parte Levengood*, 28, USPQ2d 1300, 1302 (Bd.Pat.App.Int., 1993). References may not be combined indiscriminately. It is not

enough for a valid rejection to view the prior art in retrospect once an applicant's disclosure is known. The art applied should be viewed by itself to see if it fairly disclosed doing what an applicant has done. *In re Skoll*, 187 USPQ 481, 484 (CCPA, 1975) (citing *In re Schaffer*, 108 USPQ 326, 328-29 (CCPA, 1956)).

Applicant has amended various claims and has presented additional remarks regarding the patentability of the subject claims under 35 U.S.C. §103(a) as discussed above. As claimed, Applicant describes a method and apparatus for radiological examination by injection of a contrast medium having in combination, inter alia, the limitations of a first image being taken before injection of the contrast medium, at least one second image being taken after the injection of the contrast medium during a heightened attenuation due to the contrast medium, and a representative image produced in the object from the images being calculated.

Contrary to the invention as claimed, Horiba discloses a method and apparatus for reconstructing the shape of an interested part of an object through irradiation with x-rays, Sharma discloses a low dose mammography system, and Mistretta discloses compensation for patient thickness variations in differential x-ray transmission imaging, which are specifically absent the above noted combination of elements specifically recited in the instant invention as claimed.

In attempting to combine the cited references as proposed by the Examiner, one skilled in the art is faced with the absence of any suggestion, teaching, or motivation, from the references themselves, to arrive at the combination of a first image being taken before injection of the contrast medium, at least one second image being taken after the injection of the contrast medium during a heightened attenuation due to the contrast medium, and a representative image produced in the object from the images being calculated. Such a combination is not taught or motivated by the cited references and is taught only by reference to the instant application.

In view of the foregoing, Applicant submits that the cited references do not motivate one skilled in the art to arrive at the invention as claimed, and therefore cannot

properly be used to establish a prima facie case of obviousness. Accordingly, Applicant respectfully requests reconsideration and withdrawal of this rejection.

In light of the forgoing, Applicant respectfully submits that the Examiner's rejections under 35 U.S.C. §102(b) and 35 U.S.C. §103(a) have been traversed, and respectfully request that the Examiner reconsider and withdraw these rejections. The Applicant requests a timely Notice of Allowance.

The Commissioner is hereby authorized to charge any additional fees that may be required for this amendment, or credit any overpayment, to Deposit Account No. 09-0470.

In the event that an extension of time is required, or may be required in addition to that requested in a petition for extension of time, the Commissioner is requested to grant a petition for that extension of time that is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to the above identified Deposit Account.

Respectfully submitted,

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